

**REMARKS**

**I. INTRODUCTORY REMARKS**

The Office Action dated September 24, 2008 has been received and its contents carefully considered. Claims 1-6, 8-15, and 17-21, have been amended. The Applicant thanks the Examiner for the careful consideration of this application. Based on the foregoing amendments and the following remarks, the Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

**II. AMENDMENT TO THE SPECIFICATION**

Applicant has amended paragraph [00015] of the Specification. Applicant submits that no new matter is entered by this amendment.

**III. CLAIM REJECTIONS UNDER 35 U.S.C. § 101**

**A. CLAIM 1-9**

On page 2 of the Office Action, claim 1 and is rejected under 35 U.S.C. 101 as allegedly being directed to non-statutory subject matter. Claim 1 had been amended to reflect, "identifying with a computer, live data in a previous stage required by a subsequent stage of a partitioned program stored in a machine-accessible medium..." MPEP § 2106.01, Rev. 6, 2008 (hereinafter "MPEP") states, "[w]hen functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized." Accordingly, it is respectfully submitted that amended claim 1, and all claims dependent thereon, are allowable as directed to statutory subject matter in satisfaction of 35 U.S.C. § 101. Withdrawal of the rejection and reconsideration of claim 1- 9 is earnestly requested.

**B. CLAIM 10-18**

On page 2 of the Office Action, claim 10 and is rejected under 35 U.S.C. 101 as allegedly being directed to non-statutory subject matter. This rejection is respectfully traversed, but in an effort to expedite issuance, an amendment to claim 10 is submitted as shown above and as discussed

below. Furthermore, the Specification has been amended to remove the example of “carrier wave” as machine accessible medium. Accordingly, it is respectfully submitted that amended claim 10, and all claims dependent thereon, are allowable as directed to statutory subject matter in satisfaction of 35 U.S.C. § 101. Reconsideration and withdrawal of the rejection is respectfully requested in view of the foregoing amendments and remarks.

#### **IV. CLAIM REJECTIONS UNDER 35 U.S.C. § 103**

On page 2-5 of the Office Action, claims 1-22 and are rejected under 35 U.S.C. 103 as being unpatentable over U.S. Patent Publication No. 2003/0126186 to Rodgers et al. (hereinafter “Rodgers”) in view of the Applicant’s admitted prior art in the background of the invention (hereinafter “Background”).

Claim 1, as amended, recites “identifying with a computer, live data in a previous stage required by a subsequent stage of a partitioned program...wherein at least one of said stages comprises more than one thread...wherein said live data comprises data defined in said previous stage used in said subsequent stage....” Rodgers fails to teach or suggest amended claim 1 for at least the following two reasons.

First, Rodgers fails to teach or suggest “...live data in a previous stage required by a subsequent stage of a **partitioned program**...wherein at least one of said **stages comprises more than one thread**...,” as recited in amended claim 1. Rodgers describes a “multi-threaded processor.” Rodger, Paragraph 23. The **multi-threaded processor** includes resources where “**thread partitionable resources** 140 include **logically separated partitions dedicated to particular threads** when multiple threads are active within the processor.” Rodgers, Paragraph 24. Thus, Rodgers does not teach or suggest “at least two **stages of a partitioned program**, wherein at least one of said **stages comprises more than one thread**” as recited in amended claim 1.

Second, Rodgers fails to teach or suggest “**identifying** with a computer, **live data** in a previous stage required by a subsequent stage of a partitioned program...wherein said live data comprises **data defined in said previous stage used in said subsequent stage**...,” as recited in

amended claim 1. As previously discussed, Rodgers fails to teach or suggest "...live data in a previous stage required by a subsequent stage of a partitioned program...", thus it could not teach or suggest "...wherein live data comprises **data defined in said previous stage used in said subsequent stage** ...." Furthermore, Rodgers fails to teach or suggest "**identifying** with a computer, live data in a previous stage required by a subsequent stage of a partitioned program...." In fact, Rodgers recites, "**the processor** 100 includes replicated state 180. The replicated state 180 includes state variables sufficient to maintain context for a logical processor. With replicated state 180, multiple threads can execute **without competition** for state variable storage. Additionally, register allocation logic may be **replicated for each thread.**" Rodgers, Paragraph 25. Thus, Rodgers does not teach or suggest, as recited in amended claim 1, "identifying with a computer, live data in a previous stage required by a subsequent stage of a partitioned program ...wherein said live data comprises data defined in said previous stage used in said subsequent stage...."

The Background section of the present application fails to supplement the deficiencies of Rodgers to teach or suggest amended claim 1. Furthermore, it is noted that the Action relies on the Background only for its purported teachings of "providing for transmission of said required data between consecutive stages." Reconsideration and withdrawal of the rejection is respectfully requested in view of the foregoing amendments and remarks.

Claims 2-4 are allowable over Rodgers in view of the Background for at least being dependent on allowable claim 1.

Amended claim 5 recites, "**rendering said program** such that definitions of live data in one or more **stages** in which they are **initially defined** and their uses in **subsequent stages are made explicit** by introducing an **alternative representation** of each piece of live data...." Claim 5 depends from claim 1 and is patentable for at least the reasons discussed above regarding claim 1. Further, Rodgers recites, "In block 935, the software double checks to ensure that the **memory value has not changed** from the value indicating that the thread should be idled." Rodger, Paragraph 6. Thus, Rodgers does not teach or suggest, "**rendering said program** such that definitions of live data...are explicit by introducing an alternative representation of each piece of

“live data” as recited in amended claim 5. Reconsideration and withdrawal of the rejection is respectfully requested in view of the foregoing amendments and remarks.

Amended claim 6 recites, “making one or more pairwise determinations as to whether **pieces of live data** interfere.” Claim 6 depends from claim 1 and is patentable for at least the reasons discussed above regarding claim 1. Further, Rodgers recites, “In block 935, the software double checks to ensure that the **memory value has not changed** from the value indicating that the thread should be idled.” Rodger, Paragraph 6. Thus, Rodgers does not teach or suggest, “making one or more pairwise determinations as to whether **pieces of live data** interfere” as recited in amended claim 6. Reconsideration and withdrawal of the rejection is respectfully requested in view of the foregoing amendments and remarks.

Amended claim 10 has been amended similarly to claim 1, and is therefore allowable over Rodgers in view of the Background for at least the same reasons as claim 1.

Claims 11-15 are allowable over Rodgers in view of the Background for at least being dependent on allowable claim 10.

Amended claim 19 has been amended similarly to claim 1, and is therefore allowable over Rodgers in view of the Background for at least the same reasons as claim 1.

Claims 20-22 are allowable over Rodgers in view of the Background for at least being dependent on allowable claim 19. Reconsideration and withdrawal of the rejection is respectfully requested in view of the foregoing amendments and remarks.

#### V. ALLOWABLE SUBJECT MATTER

Applicant thanks the Examiner for noting that original claims 7-9 and 16-18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2<sup>nd</sup> paragraph and to include all of the limitations of the base claim and any intervening claims.

**CONCLUSION**

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant, therefore, respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is hereby invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

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Respectfully submitted,

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